

ABSTRACT OF DISCLOSURE

In order to provide a quality evaluation apparatus having excellent measurement accuracy in obtaining quality evaluation values of fruits and vegetables, transmitted light from measured objects (M) is received by a photo-detective sensor of the charge storage type, charges are stored in the photo-detective sensor until a predetermined charge storage time lapses from start of the charge storage, a charge storage discharge process is repeatedly executed for releasing the charges stored in the photo-detective sensor until lapse of a predetermined discharge time, the stored charges are released when the measured objects (M) reach a position for measurement, and a measurement charge storage process is executed for storing charges to be used as photo-detective information for quality evaluation.

The apparatus further comprises a light emitting section (1) for emitting near-infrared light to the measured objects (M), a light receiving section (2) for separating and receiving the light, and a computing section for obtaining the quality evaluation values of the fruits and vegetables based on the photo-detective information from the light receiving section (2) and on a calibration formula. The computing section executes a wavelength calibration process based on the photo-detective information from the light receiving section (2) obtained when a reference object for wavelength calibration is measured. The calibration formula is established with a resolution greater than a maximum resolution of the photo-detective information determined by the number of plural unit photodetectors. The wavelength calibration process is executed by using the photo-detective information with a resolution smaller than the resolution with which the calibration formula is established.